

CLAIMS

1. A composition for delivery of chlordiazepoxide consisting of a condensation aerosol
 - a. formed by volatilizing a coating of chlordiazepoxide on a solid support, having the surface texture of a metal foil, to a temperature sufficient to produce a heated vapor of chlordiazepoxide and condensing the heated vapor of chlordiazepoxide to form condensation aerosol particles,
 - b. wherein said condensation aerosol particles are characterized by less than 5% chlordiazepoxide degradation products, and
 - c. the condensation aerosol has an MMAD of less than 3 microns.
2. The composition according to Claim 1, wherein the aerosol particles are formed at a rate of at least 10^9 particles per second.
3. The composition according to Claim 2, wherein the aerosol particles are formed at a rate of at least 10^{10} particles per second.
4. A composition for delivery of betahistine consisting of a condensation aerosol
 - a. formed by volatilizing a coating of betahistine on a solid support, having the surface texture of a metal foil, to a temperature sufficient to produce a heated vapor of betahistine and condensing the heated vapor of betahistine to form condensation aerosol particles,
 - b. wherein said condensation aerosol particles are characterized by less than 5% betahistine degradation products, and
 - c. the condensation aerosol has an MMAD of less than 3 microns.
5. The composition according to Claim 4, wherein the aerosol particles are formed at a rate of at least 10^9 particles per second.
6. The composition according to Claim 5, wherein the aerosol particles are formed at a rate of at least 10^{10} particles per second.

7. A composition for delivery of clonidine consisting of a condensation aerosol
 - a. formed by volatilizing a coating of clonidine on a solid support, having the surface texture of a metal foil, to a temperature sufficient to produce a heated vapor of clonidine and condensing the heated vapor of clonidine to form condensation aerosol particles,
 - b. wherein said condensation aerosol particles are characterized by less than 5% clonidine degradation products, and
 - c. the condensation aerosol has an MMAD of less than 3 microns.
8. The composition according to Claim 7, wherein the aerosol particles are formed at a rate of at least 10^9 particles per second.
9. The composition according to Claim 8, wherein the aerosol particles are formed at a rate of at least 10^{10} particles per second.
10. A composition for delivery of testosterone consisting of a condensation aerosol
 - a. formed by volatilizing a coating of testosterone on a solid support, having the surface texture of a metal foil, to a temperature sufficient to produce a heated vapor of testosterone and condensing the heated vapor of testosterone to form condensation aerosol particles,
 - b. wherein said condensation aerosol particles are characterized by less than 5% testosterone degradation products, and
 - c. the condensation aerosol has an MMAD of less than 3 microns.
11. The composition according to Claim 10, wherein the aerosol particles are formed at a rate of at least 10^9 particles per second.
12. The composition according to Claim 11, wherein the aerosol particles are formed at a rate of at least 10^{10} particles per second.
13. A composition for delivery of conjugated estrogens consisting of a

condensation aerosol

a. formed by volatilizing a coating of a conjugated estrogen on a solid support, having the surface texture of a metal foil, to a temperature sufficient to produce a heated vapor of the conjugated estrogen and condensing the heated vapor of the conjugated estrogen to form condensation aerosol particles,

b. wherein said condensation aerosol particles are characterized by less than 5% conjugated estrogen degradation products, and

c. the condensation aerosol has an MMAD of less than 3 microns.

14. The composition according to Claim 13, wherein the aerosol particles are formed at a rate of at least 10^9 particles per second.

15. The composition according to Claim 14, wherein the aerosol particles are formed at a rate of at least 10^{10} particles per second.

16. A composition for delivery of estrogen esters consisting of a condensation aerosol

a. formed by volatilizing a coating of estrogen esters on a solid support, having the surface texture of a metal foil, to a temperature sufficient to produce a heated vapor of the estrogen ester and condensing the heated vapor of the estrogen ester to form condensation aerosol particles,

b. wherein said condensation aerosol particles are characterized by less than 5% estrogen ester degradation products, and

c. the condensation aerosol has an MMAD of less than 3 microns.

17. The composition according to Claim 16, wherein the aerosol particles are formed at a rate of at least 10^9 particles per second.

18. The composition according to Claim 17, wherein the aerosol particles are formed at a rate of at least 10^{10} particles per second.

19. A composition for delivery of estradiol consisting of a condensation aerosol

a. formed by volatilizing a coating of estradiol on a solid support, having the surface texture of a metal foil, to a temperature sufficient to produce a heated vapor of estradiol and condensing the heated vapor of estradiol to form condensation aerosol particles,

b. wherein said condensation aerosol particles are characterized by less than 5% estradiol degradation products, and

c. the condensation aerosol has an MMAD of less than 3 microns.

20. The composition according to Claim 19, wherein the aerosol particles are formed at a rate of at least 10^9 particles per second.

21. The composition according to Claim 20, wherein the aerosol particles are formed at a rate of at least 10^{10} particles per second.

22. A composition for delivery of estradiol esters consisting of a condensation aerosol

a. formed by volatilizing a coating of an estradiol ester on a solid support, having the surface texture of a metal foil, to a temperature sufficient to produce a heated vapor of the estradiol ester and condensing the heated vapor of the estradiol ester to form condensation aerosol particles,

b. wherein said condensation aerosol particles are characterized by less than 5% estradiol ester degradation products, and

c. the condensation aerosol has an MMAD of less than 3 microns.

23. The composition according to Claim 22, wherein the aerosol particles are formed at a rate of at least 10^9 particles per second.

24. The composition according to Claim 23, wherein the aerosol particles are formed at a rate of at least 10^{10} particles per second.

25. A composition for delivery of ethinyl estradiol consisting of a condensation aerosol

a. formed by volatilizing a coating of ethinyl estradiol on a solid support,

having the surface texture of a metal foil, to a temperature sufficient to produce a heated vapor of ethinyl estradiol and condensing the heated vapor of ethinyl estradiol to form condensation aerosol particles,

- b. wherein said condensation aerosol particles are characterized by less than 5% ethinyl estradiol degradation products, and
- c. the condensation aerosol has an MMAD of less than 3 microns.

26. The composition according to Claim 25, wherein the aerosol particles are formed at a rate of at least 10^9 particles per second.

27. The composition according to Claim 26, wherein the aerosol particles are formed at a rate of at least 10^{10} particles per second.

28. A composition for delivery of ethinyl estradiol esters consisting of a condensation aerosol

- a. formed by volatilizing a coating of an ethinyl estradiol ester on a solid support, having the surface texture of a metal foil, to a temperature sufficient to produce a heated vapor of the ethinyl estradiol ester and condensing the heated vapor of the ethinyl estradiol ester to form condensation aerosol particles,
- b. wherein said condensation aerosol particles are characterized by less than 5% ethinyl estradiol ester degradation products, and
- c. the condensation aerosol has an MMAD of less than 3 microns.

29. The composition according to Claim 28, wherein the aerosol particles are formed at a rate of at least 10^9 particles per second.

30. The composition according to Claim 29, wherein the aerosol particles are formed at a rate of at least 10^{10} particles per second.

31. A composition for delivery of hyoscyamine consisting of a condensation aerosol

- a. formed by volatilizing a coating of hyoscyamine on a solid support, having the surface texture of a metal foil, to a temperature sufficient to produce a heated vapor of

hyoscyamine and condensing the heated vapor of hyoscyamine to form condensation aerosol particles,

- b. wherein said condensation aerosol particles are characterized by less than 5% hyoscyamine degradation products, and
- c. the condensation aerosol has an MMAD of less than 3 microns.

32. The composition according to Claim 31, wherein the aerosol particles are formed at a rate of at least 10^9 particles per second.

33. The composition according to Claim 32 wherein the aerosol particles are formed at a rate of at least 10^{10} particles per second.

34. A method of producing chlordiazepoxide in an aerosol form comprising:

- a. heating a coating of chlordiazepoxide on a solid support, having the surface texture of a metal foil, to a temperature sufficient to volatilize the chlordiazepoxide to form a heated vapor of the chlordiazepoxide, and
- b. during said heating, passing air through the heated vapor to produce aerosol particles of the chlordiazepoxide comprising less than 5% chlordiazepoxide degradation products, and an aerosol having an MMAD of less than 3 microns.

35. The method according to Claim 34, wherein the aerosol particles are formed at a rate of greater than 10^9 particles per second.

36. The method according to Claim 35, wherein the aerosol particles are formed at a rate of greater than 10^{10} particles per second.

37. A method of producing betahistine in an aerosol form comprising:

- a. heating a coating of betahistine on a solid support, having the surface texture of a metal foil, to a temperature sufficient to volatilize the betahistine to form a heated vapor of the betahistine, and
- b. during said heating, passing air through the heated vapor to produce aerosol particles of the betahistine comprising less than 5% betahistine degradation products, and an aerosol having an MMAD of less than 3 microns.

38. The method according to Claim 37, wherein the aerosol particles are formed at a rate of greater than 10^9 particles per second.

39. The method according to Claim 38, wherein the aerosol particles are formed at a rate of greater than 10^{10} particles per second.

40. A method of producing clonidine in an aerosol form comprising:

- a. heating a coating of clonidine on a solid support, having the surface texture of a metal foil, to a temperature sufficient to volatilize the clonidine to form a heated vapor of the clonidine, and
- b. during said heating, passing air through the heated vapor to produce aerosol particles of the clonidine comprising less than 5% clonidine degradation products, and an aerosol having an MMAD of less than 3 microns.

41. The method according to Claim 40, wherein the aerosol particles are formed at a rate of greater than 10^9 particles per second.

42. The method according to Claim 41, wherein the aerosol particles are formed at a rate of greater than 10^{10} particles per second.

43. A method of producing testosterone in an aerosol form comprising:

- a. heating a coating of testosterone on a solid support, having the surface texture of a metal foil, to a temperature sufficient to volatilize the testosterone to form a heated vapor of the testosterone, and
- b. during said heating, passing air through the heated vapor to produce aerosol particles of the testosterone comprising less than 5% testosterone degradation products, and an aerosol having an MMAD of less than 3 microns.

44. The method according to Claim 43, wherein the aerosol particles are formed at a rate of greater than 10^9 particles per second.

45. The method according to Claim 44, wherein the aerosol particles are

formed at a rate of greater than 10^{10} particles per second.

46. A method of producing conjugated estrogens in an aerosol form comprising:

- a. heating a coating of a conjugated estrogen on a solid support, having the surface texture of a metal foil, to a temperature sufficient to volatilize the conjugated estrogen to form a heated vapor of the conjugated estrogen, and
- b. during said heating, passing air through the heated vapor to produce aerosol particles of the conjugated estrogen comprising less than 5% conjugated estrogen degradation products, and an aerosol having an MMAD of less than 3 microns.

47. The method according to Claim 46, wherein the aerosol particles are formed at a rate of greater than 10^9 particles per second.

48. The method according to Claim 47, wherein the aerosol particles are formed at a rate of greater than 10^{10} particles per second.

49. A method of producing estrogen esters in an aerosol form comprising:

- a. heating a coating of an estrogen ester on a solid support, having the surface texture of a metal foil, to a temperature sufficient to volatilize the estrogen ester to form a heated vapor of the estrogen esters, and
- b. during said heating, passing air through the heated vapor to produce aerosol particles of the estrogen ester comprising less than 5% estrogen ester degradation products, and an aerosol having an MMAD of less than 3 microns.

50. The method according to Claim 49, wherein the aerosol particles are formed at a rate of greater than 10^9 particles per second.

51. The method according to Claim 50, wherein the aerosol particles are formed at a rate of greater than 10^{10} particles per second.

52. A method of producing estradiol in an aerosol form comprising:

- a. heating a coating of estradiol on a solid support, having the surface texture

of a metal foil, to a temperature sufficient to volatilize the estradiol to form a heated vapor of the estradiol, and

b. during said heating, passing air through the heated vapor to produce aerosol particles of the estradiol comprising less than 5% estradiol degradation products, and an aerosol having an MMAD of less than 3 microns.

53. The method according to Claim 52, wherein the aerosol particles are formed at a rate of greater than 10^9 particles per second.

54. The method according to Claim 53, wherein the aerosol particles are formed at a rate of greater than 10^{10} particles per second.

55. A method of producing estradiol esters in an aerosol form comprising:

a. heating a coating of an estradiol ester on a solid support, having the surface texture of a metal foil, to a temperature sufficient to volatilize the estradiol ester to form a heated vapor of the estradiol ester, and

b. during said heating, passing air through the heated vapor to produce aerosol particles of the estradiol ester comprising less than 5% estradiol ester degradation products, and an aerosol having an MMAD of less than 3 microns.

56. The method according to Claim 55, wherein the aerosol particles are formed at a rate of greater than 10^9 particles per second.

57. The method according to Claim 56, wherein the aerosol particles are formed at a rate of greater than 10^{10} particles per second.

58. A method of producing ethinyl estradiol in an aerosol form comprising:

a. heating a coating of ethinyl estradiol on a solid support, having the surface texture of a metal foil, to a temperature sufficient to volatilize the ethinyl estradiol to form a heated vapor of the ethinyl estradiol, and

b. during said heating, passing air through the heated vapor to produce aerosol particles of the ethinyl estradiol comprising less than 5% ethinyl estradiol degradation products, and an aerosol having an MMAD of less than 3 microns.

59. The method according to Claim 59, wherein the aerosol particles are formed at a rate of greater than 10^9 particles per second.

60. The method according to Claim 60, wherein the aerosol particles are formed at a rate of greater than 10^{10} particles per second.

61. A method of producing ethinyl estradiol esters in an aerosol form comprising:

- a. heating a coating of an ethinyl estradiol ester on a solid support, having the surface texture of a metal foil, to a temperature sufficient to volatilize the ethinyl estradiol ester to form a heated vapor of the ethinyl estradiol ester, and
- b. during said heating, passing air through the heated vapor to produce aerosol particles of the ethinyl estradiol ester comprising less than 5% ethinyl estradiol ester degradation products, and an aerosol having an MMAD of less than 3 microns.

62. The method according to Claim 61, wherein the aerosol particles are formed at a rate of greater than 10^9 particles per second.

63. The method according to Claim 62, wherein the aerosol particles are formed at a rate of greater than 10^{10} particles per second.

64. A method of producing hyoscyamine in an aerosol form comprising:

- a. heating a coating of hyoscyamine on a solid support, having the surface texture of a metal foil, to a temperature sufficient to volatilize the hyoscyamine to form a heated vapor of the hyoscyamine, and
- b. during said heating, passing air through the heated vapor to produce aerosol particles of the hyoscyamine comprising less than 5% hyoscyamine degradation products, and an aerosol having an MMAD of less than 3 microns.

65. The method according to Claim 65, wherein the aerosol particles are formed at a rate of greater than 10^9 particles per second.

66. The method according to Claim 65, wherein the aerosol particles are formed at a rate of greater than 10^{10} particles per second.